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EXAMINER				
PAUL, DISLER				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary

Application No.

10/589,111

Applicant(s)

MERGLER, IWO-MARTIN

Examiner

DISLER PAUL

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/26/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27;29-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27;29-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Arguments

The Applicant's argument of wherein Boyd fail to disclose of the "acoustic source and output audio signal" in regard to the amended claim has been fully considered and thus, the last office action has been vacated.

However, upon further consideration, the claim has been rejected in view of Griffith et al. (US 6,842,647 B1).

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3; 5; 10, 12, 17, 19-21; 23-24; 26-27; 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated over Griffith et al. (US 6,842,647 B1).

Re claim 1, Griffith et al. disclose of an audio system for use with an audio source that provides an input audio signal, the system comprising: an acoustic source to combine an identification signal with the input audio signal to produce an output audio signal, the identification signal identifying the acoustic source (fig.3 (30); col.2 line 64 & col.3 line 20); and a remote control device, to control the acoustic source; to receive the output audio signal, and to identify the acoustic source based on the identification signal (fig.3 (20,10); col.8 line 15-21; col.6 line 50-67 & col.7 line 10; col.6 line 40-50).

Re claim 2, the audio system as claimed in Claim 1, wherein the identification signal included within the output audio signal is arranged to be inaudible (col.5 line 25-30; col.3 line 10-20/radio frequency at inaudible).

Re claim 3, the audio system as claimed in claim 1, wherein the input audio signal is modulated with the identification signal (col.8 line 45-61).

Re claim 5, the audio system as claimed in claim 1, and including circuitry to determine the distance between the acoustic source and the remote control device (col.5 line 45-60; col.6 line 15-25).

Re claim 10, the audio system as claimed in claim 1, wherein the remote control unit is arranged to transmit a controlling signal to the acoustic source serving to control the volume of the output audio signal in a manner responsive to a change in distance of the remote control device from the acoustic source (fig.3 (34,46,40); col.6 line 63 & col.7 line 1-17/status info for controller as with signals strength so that controller may operate the audio generator including the volume).

Re claim 11, the audio system as claimed in Claim 10, wherein the change in distance is determined on the basis of a change in magnitude of the output audio signal as received at the remote control device

Re claim 12, the audio system as claimed in claim 1, further comprising circuitry to determine inherently the position of the remote control device relative to the acoustic source on the basis of the identification signal received at the remote control device (col.7 line 5-20/infor regarding *the strength of the information based on distance*).

Re claim 17, the audio system as claimed in claim 1, wherein the acoustic source is arranged such that the identification signal is included within the output audio signal and with a relatively high carrier frequency (col.5 line 25-32).

Re claim 19, Griffith et al. disclose of the method of controlling an acoustic source arranged for outputting an audio signal, the method comprising: combining an identification signal with an input audio signal to produce an output audio signal, the identification signal identifying the acoustic source (fig.3 (30); col.2 line 64 & col.3 line 10); receiving, at a remote control device arranged for control of the acoustic source, the output audio signal; processing the received output audio signal to identify the acoustic source based on the identification signal; and transmitting a control signal from the remote control device to the identified acoustic source (fig.3 (20,10); col.6 line 50-67 & col.7 line 10; col.6 line 40-50).

Re claim 20, the method as claimed in Claim 19, wherein the identification signal included within the output audio signal is arranged to be inaudible (col.5 line 25-30/radio frequency carrier).

Re claim 21, the method as claimed in claim 20, wherein the input audio signal is modulated with the identification signal (col.8 line 45-61).

Re claims 23-24 have been analyzed and rejected with respect to claim 5, 10 respectively.

Re claim 26 has been analyzed and rejected with respect to claim 12.

Re claim 27, the acoustic source for use in an audio system which includes an audio source that provides an input audio signal and a remote control device that controls the acoustic source responsive to an output audio signal provided by the acoustic source, the acoustic source comprising: circuitry to combine an identification signal with the input audio signal to produce the output audio signal, the identification signal identifying the acoustic source; an circuitry to provide the output audio signal to the remote control device (see claim 1 rejection analysis).

Re claim 29, Griffith et al. disclose of a remote control device for controlling an output audio signal provided by an acoustic source, the acoustic source combining an identification signal with an input audio signal to produce the output audio signal, the identification signal indentifying the acoustic source , the remote control device comprising: circuitry, including an antenna, to receive the output audio signal; circuitry, including a processor, to process the received output audio signal to identify the acoustic source based on the identification signal col.6 line 40-50; fig.3 (16)); and circuitry, including a transmitter, to transmit a control signal to the identified acoustic source (col.7 line 1-20, fig.3).

Re claim 30, the remote control device for controlling an audio signal output by an acoustic source and arranged for use in an audio system as claimed in claim 1 (fig.3 wt (34,46,40)).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith et al. (US 6,842,647 B1) and Engebretson (US 5,475,759).

Re claim 4, the audio system as claimed in claim 1, But, Griffith et al. fail to disclose of the specific wherein the identification signal comprises a pseudo random noise signal. But, Engebretson disclose of a system wherein the similar concept of the identification signal comprises a pseudo random noise signal (fig.5 wt (111,se); col.8 line 60-65; col.12 line 5-11). Thus, taking the combined teaching of Griffith et al. and Engebretson as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Griffith et al. with the identification signal comprises a pseudo random noise signal for effectively controlling the adaptive filter of the hearing aid.

Re claim 22, has been analyzed and rejected with respect to claim 4.

Claims 11, 13-16; 18; 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith et al. (US 6,842,647 B1).

Re claim 18, the audio system as claimed in Claim 17, but, Griffith et al. fail to disclose of the specific wherein the carrier frequency comprises at least a low ultrasound frequency. But, official notice is taken the concept of having such carrier frequency comprises at least a low ultrasound frequency is well known in the art. Thus, it would have been obvious for one of the ordinary skills in the art to have modified Griffith with the carrier frequency comprises at least a low ultrasound frequency for inconspicuously transmitting the control signals.

Re claim 11, the audio system as claimed in Claim 10 (col.7 line 5-21; col.8 line 15-25/distance and volume changes permitted). But, Griffith fail to disclose of the specific wherein the change in distance is determined on the basis of a change in magnitude of the output audio signal as received at the remote control device. However, official notice is taken the concept of having such specific wherein change in distance is determined on the basis of a change in magnitude of the output audio signal as received at the remote control device is well known in the art. Thus, it would have been obvious for one of the ordinary skill in the art to have modified Griffith with the specific wherein the change in distance is determined on the basis of a change in magnitude of the output

audio signal as received at the remote control device for providing a constant audio signal source for the listener.

Re claim 25, has been analyzed and rejected with respect to claim 25.

Re claim 13, the audio system as claimed in Claim 12, But, Griffith fail to disclose of the specific wherein the acoustic source is arranged to provide a plurality of output channels, wherein a different identification signal is associated with the audio signal output from each channel. But, official notice is taken the concept of having acoustic source is arranged to provide a plurality of output channels, wherein a different identification signal is associated with the audio signal output from each channel is well known in the art. Thus, it would have been obvious for one of the ordinary skills in the art to have modified Griffith with the acoustic source is arranged to provide a plurality of output channels, wherein a different identification signal is associated with the audio signal output from each channel. for controlling the respective left or right remote device (as in user ear left or right of the device).

Re claim 14, the audio system as claimed in Claim 13, wherein the remote control device is arranged to transmit a signal to the acoustic source serving to output from at least one of the said channels in response to the determined position of the remote

control device relative to the acoustic source (col.7 line 10-25; col.5 line 45-60; col.6 line 15-25/based on distance and properly operation then output of signal generated).

However, Griffith fail to disclose of the *vary output* from at least one of the said channels in response to the determined position of the remote control device relative to the acoustic source. However, official notice is taken the concept of *vary output* from at least one of the said channels in response to the determined position of the remote control device relative to the acoustic source is well known in the art. thus, it would have been obvious for one of the ordinary skill in the art to have modified Griffith with the specific wherein *vary output* from at least one of the said channels in response to the determined position of the remote control device relative to the acoustic source for providing a constant audio signal source for the listener.

Re claim 15, the audio system as claimed in Claim 13, wherein the remote control device is arranged to transmit a signal to the acoustic source serving to vary the output from at least one of the said channels in response to a change in position of the remote control device relative to the acoustic source (see claim 14 rejection analysis).

Re claim 16, the audio system as claimed in Claim 15 (with having an acoustic source for control signal; fig.3 (30)), But, Griffith fail to disclose of the further comprising a plurality of acoustic sources arranged to be located in a spaced relationship and circuitry to hand-over the audio signal output there-between responsive to a control

signal from the remote control device. But, it noted the concept of having a plurality of acoustic sources arranged to be located in a spaced relationship and circuitry to hand-over the audio signal output there-between responsive to a control signal from the remote control device is simply the designer's need and wherein the combination of known objects (being plurality) which would yield predictable result. Thus, it would have been obvious for one of the ordinary skill in the art to have modified Griffith with the plurality of acoustic sources arranged to be located in a spaced relationship and circuitry to hand-over the audio signal output there-between responsive to a control signal from the remote control device for providing control signal to the audio device for operation.

Griffith further disclose of the remote control device being arranged to generate the control signal responsive to determination of the change in location of the remote control device relative to the said plurality of acoustic sources (see claim 15 rejection analysis).

4. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith et al. (US 6,842,647 B1) and Boyd (US 5,708,421).

Re claim 6, the audio system as claimed in Claim 5, But, Griffith fail to disclose of the specific wherein the circuitry to determine the said distance is responsive to a timed receipt of the identification signal.

But, Boyd disclose of a system wherein such similar concept wherein the circuitry to determine the said distance is responsive to a timed receipt of the identification signal (Col.6 line 40-45; col.5 line 6-15). Thus, taking the combined teaching of Griffith and Boy as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Boyd with the similar concept of the circuitry to determine the said distance is responsive to a timed receipt of the identification signal for providing an easy convenient manner of tracking the article at a short distance.

Re claim 7, the audio system as claimed in claim 6 , wherein the remote control device is arranged to generate a timing reference signal and generate a timing reference signal to the acoustic source (col.2 line 20-25/as in regard to time signal will generate a receipt to the source from the remote).

Re claim 8, the audio system as claimed in claim 6, wherein the acoustic source is arranged to produce a timing reference signal and to transmit an indication of that to the remote control unit (fig.1 wt (20); col.5 line 32-38; col.2 line 15-25).

Re claim 9, the audio system as claimed in claim 5, But, Griffith fail to disclose of the specific wherein said distance between the acoustic source and the remote control device is determined on the basis of the timed

receipt of the audio output signal from the acoustic source at the remote control device.

But, Boyd disclose of a system wherein the similar concept of having distance between the source and the remote control device is determined on the basis of the timed receipt of the audio output signal from the source at the remote control device (col.5 line 5-15; col.6 line 35-55). Thus, taking the combined teaching of Griffith and Boy as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Boyd with the similar concept of distance between the source and the remote control device is determined on the basis of the timed receipt of the audio output signal from the source at the remote control device for providing an easy convenient manner of tracking the article at a short distance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISLER PAUL whose telephone number is (571)270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./
Examiner, Art Unit 2614

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2614